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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/822,651

03/30/2001

Scott J. Tuman

54407US006

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05/24/2010

3M INNOVATIVE PROPERTIES COMPANY

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EXAMINER

LIGHTFOOT, ELENA TSOY

ART UNIT

PAPER NUMBER

1715

NOTIFICATION DATE

DELIVERY MODE

05/24/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 09/822,651	Applicant(s) TUMAN ET AL.	
	Examiner ELENA Tsoy LIGHTFOOT	Art Unit 1715	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 113-124, 126-131, 133-138 and 140-154 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 113-124, 126-131, 133-138 and 140-154 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/25/10</u> . | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

Amendment filed on April 1, 2010 has been entered. Claims 125, 132, 139 have been cancelled. Claims 113-124, 126-131, 133-138 and 140-154 are pending in the application.

Claims examined on the merits are 113-124, 126-131, 133-138 and 140-154.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 140-148 stand rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement for the reasons of record set forth in paragraph 2 of the Office Action mailed on 10/01/2009.

Applicants' arguments

Applicants argue that the 35 USC § 112, first paragraph, written description support for the limitation "wherein the second major side of the fibrous nonwoven web is at least partially "exposed" in the application as filed is clear. Referring to Fig. 1, the specification states at page 5, line 23 that the web 10 may be a non-woven. Fig. 1 clearly shows that the second side 19 (referred to as the opposite side on page 5, line 21) is completely exposed. The Office Action statements about Fig. 5 and page 8, lines 4-7 do not change the fact that the limitation is clearly described on page 5, line 23 and in Fig. 1.

The Examiner respectfully disagrees with this argument. First of all, the specification states at page 5, line 23: "The web 10 is, for example, woven or non-woven, and may be a **continuous** film or composed of a multitude of **fibers**". Figs. 1 and 2 clearly show **continuous** film not a film composed of a multitude of **fibers**. Thus, in contrast to Applicants assertion, there is no written description support for the limitation "wherein the second major side of the fibrous nonwoven web is at least partially "exposed" in the application.

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3. Claims 140-148 stand rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the *enablement* requirement for the reasons of record set forth in paragraph 3 of the Office Action mailed on 10/01/2009.

Applicants' arguments

(A) Applicants note that the Office Action does not address Applicants previously presented argument with regard to the question of enablement. According to MPEP 2164.01, "The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation." Applicants submit that the Office Action does not address certain relevant factors for determining whether one skilled in the art could make the invention without undue experimentation. Therefore, the Office has not met the initial burden of establishing a reasonable basis to question the enablement provided for in the claimed invention. Applicants submit that all the information necessary for a person skilled in the art to practice the claimed invention can be found in the specification as filed. The specification states on page 5, line 25 that the web material may be chosen based on properties such as breathability and porosity. The materials used in the working examples include fibrous materials having a variety of basis weights. The working examples also indicate that the speed of the web (e.g., 4.6 m/min in Example 1 and 9.1 m/min in Example 5) can be altered as the polymer is deposited to make discrete patches of polymer. Furthermore, the polymer can be deposited at different rates (e.g., 0.5 kg/hour in Example 1 and 0.8 kg/hour in Example 4). Factors such as speed of the web and rate of depositing the polymer to form the discrete patch of polymer affect how much polymer is deposited on the web. Equipped with the information in the specification, a person having skill in the art could make the web construction claimed in claims 140-148 without undue experimentation. Furthermore, the Office's position appears to be that a polymer can not be prevented from going through a fibrous material when pressure is applied to it. At the time the application was filed, the state of the art did not support this position.

The Examiner respectfully disagrees with this argument. First of all, in contrast to Applicants argument, the Office has met the initial burden of establishing a reasonable basis to question the enablement provided for in the claimed invention. The limitation "the second major side of the fibrous web is **at least partially exposed**" means that "the polymer forming the polymeric regions does not extend *through* the substrate" (independent claims 113-115), wherein the substrate is a **fibrous** web (Claims 113-115) of e.g. non-woven **fibrous** material (Claims 114-115), was not described in the specification in such a way as to enable one skilled in the art to prevent the melted

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polymer to go *through* the **fibrous** material, the **woven** web or the **knit** web under the pressure of roll 58 against the roll 57 such that the second major side of the fibrous web is partially or fully exposed. Thus, the Office has met the initial burden of establishing a reasonable basis that one skilled in the art could not be able to make and use the invention with or without undue experimentation to prevent the **melted** polymer to go *through* the *fibrous* material, the *woven* web or the *knit* web under the pressure of roll 58 against the roll 57 such that the second major side of the fibrous web is partially or fully exposed.

(B) Applicants presented evidence based on U.S. Pat. No. 5,669,120 (Wessels et al.) that one skilled in the art would understand that when a polymeric material is deposited on only the first side of a substrate as described in the present specification (e.g., page 6, lines 14-26), whether the polymeric material would be present on the second major side of the substrate depends on the properties of the substrate such as porosity and thickness, even if the substrate is fibrous. Contrary to MPEP 707.07(f), which guides that the Office Action should have answered all material traversed, the Office Action did not comment on this evidence with regard to the question of enablement which is made from fibers. Therefore, for at least these reasons, the rejection of claims 151 and 154 under 35 USC § 103(a) as being unpatentable over Wessels et al. (US 5,669,120) has been overcome and should be withdrawn.

The Examiner respectfully disagrees with this argument. The U.S. Pat. No. 5,669,120 (Wessels et al.) cannot be used by Applicants as “evidence” to support their claims for the following reasons:

- (i) The patent ‘120 is not their own work;
- (ii) The entire disclosure of the patent ‘120 is not incorporated by reference into the Applicants’ specification;
- (iii) The fact that the patent ‘120 describes in detail how to make a web having loops and hooks on a fibrous substrate by making S1 regions (where the melted polymer does not go through the fibrous web) and S2 regions (where the melted polymer does go through the fibrous web) shows that the limitation of the melted polymer not going through the fibrous web is novel and is the subject matter of their invention;
- (iv) The patent ‘120 shows that melted resin does go through the fibrous web unless special conditions are met;

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- (v) Applicants cannot use 102(b) **prior** art reference to **support** their claims.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Rejection of claims 149-150, 152 under 35 U.S.C. 102(b) as anticipated by Wessels et al (US 5,669,120) has been withdrawn due to amendment.
7. Rejection of claims 151 and 154 under 35 U.S.C. 103(a) as being unpatentable over Wessels et al '120 has been withdrawn due to amendment.
8. Rejection of claim 153 under 35 U.S.C. 103(a) as being unpatentable over Wessels et al '120 in view of McCormack et al (US 6589638) has been withdrawn due to amendment.
9. Rejection of claims 113, 116-120, and 122-125 under 35 U.S.C. 103(a) as being unpatentable over Wessels et al '120 in view of Allen et al (US 5,547,531) has been withdrawn due to amendment.

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10. Rejection of claims 113, 116-120, and 122-125 under 35 U.S.C. 103(a) as being unpatentable over Wessels et al '120 in view of Allen et al '531, further in view of Provost et al (US 5606781) has been withdrawn due to amendment.

11. Rejection of claim 115 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wessels et al '120, further in view of Long et al, as applied above, and further in view of Shoemaker (US 4903874)* has been withdrawn due to amendment.

12. Claims 149, 150, 152 and 154 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Thomas (US 5,586,371) and D'Errico (US 5529848).

Thomas is applied here for the same reasons as set forth in paragraph 7 of the Office Action mailed on 4/13/2006.

As to a substrate being of non-fibrous thermoplastic material of claim 149,
Thomas teaches that suitable substrates 24 include knitted fabric, woven materials, nonwoven materials, rubber, vinyl and films, including polyolefinic films particularly and preferably polyester films such as commercially available polyester film from Hoechst Celanese sold under the trade name Hostaphan 2400 (See column 6, lines 43-53).
Although Thomas does not explicitly disclose that Hostaphan is thermoplastic polyester film, it is, however, well known in the art that polyester film from Hoechst Celanese sold under the trade name Hostaphan is thermoplastic, as evidenced by D'Errico. D'Errico teaches that preferred substrates are sheet(s) of transparent materials such as glass or non-extensible flexible **thermoplastic** materials such as linear **polyesters**, e.g. polyethylene terephthalate (PET) (or equivalent material having the characteristics of

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PET) which is commercially available as Mylar® or Hostaphan from Hoechst Celanese Corp (See column 6, lines 53-58).

13. Claims 151 and 154 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas '371 and D'Errico '848, as applied above, and further in view of Wessels et al '120.

Thomas teaches hooks (See Figs. 1, 2). Wessels et al teaches that conventional art uses hook- or mushroom-shape engaging elements with loop elements (See column 1, lines 18-25). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used mushroom-shape engaging elements in Thomas since it is well known in the art to use hook- or mushroom-shape engaging elements with loop elements. It is held that the selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945). See MPEP 2144.07.

14. Claims 114, 115, 126-130 and 133-137 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wessels et al '120 or over Thomas '371 and D'Errico '848, as applied above, and further in view of Long et al (US 5624429).

Wessels et al '120 is applied here for the reasons of record set forth in paragraph 8 of the Office Action mailed on 5/27/2009.

The cited prior art fails to teach that *fibrous nonwoven* can be used as a loop material. However, Long et al teaches that a loop material can be provided by a nonwoven, woven or knit fabric (See column 20, lines 12-15).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used nonwoven fabric as a loop material in the cited prior art instead of woven or knit fabric since Long et al teaches that a loop material can be provided by a nonwoven, woven or knit fabric.

Moreover, it is held that the selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945). See MPEP 2144.07.

As to claim 115, Wessels et al teaches that since the pile core sheet is manufactured by weaving or knitting, it is possible to ***change the design*** of the pile core sheet in arrangement and orientation of piles and to determine ***the size, shape or arrangement of hook elements*** optionally. It is accordingly possible to cope instantly with various requirements for the surface fastener in which hook and loop elements coexist. (See column 10, lines 54-60).

Wessels et al does not explicitly disclose *circular* shaped fasteners. However, it was well known in the art to use *circular* shaped fasteners before the Applicants invention*. Therefore, although Wessels et al does not explicitly disclose claimed design, it would be within the level of ordinary engineering skill to make hooks of any design including circular shaped patches depending on particular use of a final product since it is held that a shape is an obvious choice of design.

It is the Examiner's position that it would be within the level of ordinary engineering skill to make circular shaped hooks.

Applicants' arguments

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Applicants submit that the cited art, alone or in combination, does not disclose a plurality of discrete polymeric regions comprising a discrete patch of polymer having a perimeter that is entirely surrounded or bordered by a first major side of the nonwoven web, as recited in claim 114. Although the Office Action states in paragraph 9 that "hook regions having hook elements 4b extending from the substrate 4a/S, as shown in Fig. 4, is entirely bordered by the first major side of the substrate," as required by the claim, it is unclear from the Office Action how a cross-sectional view of the web as shown in Fig. 4A-F of the Wessels et al. can support this position. None of the cross-sections appear to illustrate a discrete patch of polymer having a perimeter that is entirely bordered by a fibrous web. Instead, regions that appear to be polymeric in Figs. 4A-F (e.g., substrate sheet 4a), all appear to extend to an edge of the substrate illustrated. Therefore, the Office Action has not demonstrated that the cited art discloses a discrete patch of polymer having a perimeter that is entirely surrounded or bordered by a first major side of the nonwoven web.

The Examiner respectfully disagrees with this argument.

As to a discrete patch of polymer having a perimeter that is entirely bordered by the first major side of the fibrous web, note that Board affirmed the Examiner's position about an obvious choice of design in the Decision rendered on 2/24/2006.

15. Claims 131 and 138 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wessels et al '120 in view of Long et al '429 or over Thomas '371/D'Errico '848 in view of Long et al '429, as applied above, and in view of Murasaki (US 5,643,651).

The cited prior art fails to teach that the plurality of stems is oriented in multiple directions.

Murasaki teaches that a plurality of stems oriented at an angle that is not normal to the plane of the web in multiple directions provides a fastener with no directivity in engaging strength (See column 7, lines 53-56).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have made a hook material of a fastener in Wessels et al having stems that are angled in multiple directions with the expectation of providing the

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fastener with no directivity in engaging strength depending on particular use of a final product, as taught by Murasaki.

16. Claim 153 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas '371 and D'Errico '848, as applied above, and further in view of McCormack et al (US 6589638).

Thomas '371 fails to teach that the thermoplastic is microporous.

McCormack et al teaches that for applications where the loop component also serves as the backing material, it is highly desirable that it can be **breathable** (claimed microporous film) for comfort and also that it serve as a barrier to prevent leakage (See column 1, lines 27-30).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have made a breathable fastener in Thomas '371 with the expectation of providing the desired comfort and a barrier to leakage, as taught by McCormack et al.

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELENA Tsoy LIGHTFOOT whose telephone number is (571)272-1429. The examiner can normally be reached on Monday-Friday, 9:00AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Elena Tsoy Lightfoot, Ph.D.
Primary Examiner
Art Unit 1715

May 20, 2010

/Elena Tsoy Lightfoot/